

ON SOME EUROPEAN SIPHONAPTERA.

BY HON. N. CHARLES ROTHSCHILD, M.A., F.L.S.

Through the kindness of Dr. Geza Horváth we have lately been able to examine specimens of *Ischnopsyllus wagneri*, Kohaut (1903). The insect is undoubtedly identical with *I. intermedius*, Rothschild (1898).

In Tijdschr. v. Ent., 1909, pp. 96—108, Dr. A. C. Oudemans described a female and a male of *Ischnopsyllus* under the new name of *I. schmitzi*. In a subsequent paper (Zool. Anzeig., 1909, p. 736) the author stated that the female belonged to *I. intermedius*, Rothschild. The description of the specimen, however, does not agree with any of our females from England and the Continent in several of the details on which Oudemans lays stress, for instance, in the bristles of the abdomen and legs. As the author states his description and figures to be "peinlichst genau," it is perhaps venturesome on our part to assume that some of his statements are nevertheless incorrect, and that the female of *schmitzi* is after all the same as *I. intermedius*.

The male of *schmitzi*, of which the author very kindly gave us a specimen in exchange, proves to belong to *I. simplex*, Rothschild (1906).

The synonymy of these bat-fleas therefore reads:—

1.—ISCHNOPSYLLUS INTERMEDIUS, Rothschild (1898).

Ceratopsylla intermedius, Rothschild, Nov. Zool., p. 543, t. 17, fig. 15 (1898).

Ceratopsylla wagneri, Kohaut, Állat. Közlem. ii, p. 62, t. 7, fig. 3, 8.9.10 (1903).

Ischnopsyllus schmitzi, Oudemans, Tijdschr. v. Ent., p. 97 (1909) (♀ only; ♂ alia species).

2.—ISCHNOPSYLLUS SIMPLEX, Rothschild (1906).

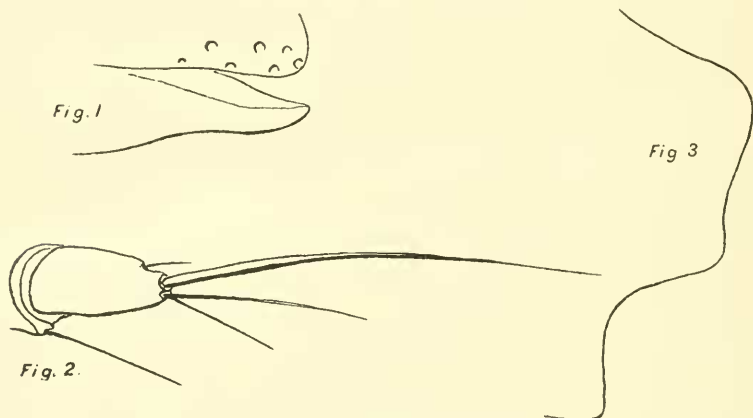
Ischnopsyllus simplex, Rothschild, Nov. Zool., p. 186 (1906).

Ischnopsyllus schmitzi, Oudemans, *l.c.* (♂ only; ♀ alia species).

Besides these two species five more eight-combed bat-fleas are known from Europe, namely, *I. elongatus*, Curt. (1832), *I. obscura*, Wagn. (1898), *I. octactenus*, Kolen. (1856), *I. variabilis*, Wagn. (1898), and *I. decimpilata*, Wagn. (1898); to which I can add another species, which, however, may possibly be the true female of *obscura*. The specimens described as females of *obscura* by Wagner probably he himself states, did not belong to that insect.

3.—*ISCHNOPSYLLUS BRACHYSTYLUS*, spec. nov. (Figs. 1 and 2).

We have two specimens, which, in general appearance, most nearly resemble *I. elongatus*, Curt. (1832), but are at once distinguished from both this species and *I. intermedius*, Rothsch. (1898), by the short



anal stylet. The two specimens differ considerably in detail. But as they were obtained off the same host on the same day, presumably off the same individual of the host, and as in the allied species also there is a great amount of variation in such details, we believe we are justified in treating the two specimens as belonging to one species.

The head is a little less rounded than even in *I. intermedius*. The numbers of spines in the eight combs are in the type 41, 43, 28, 41, 34, 25, 13, and 16, and in the second specimen, 41, 39, 30, 35, 32, 23, 13, and 11. The mesonotum bears in the type a row of about 20 slender spines on the inside before the apical edge, and in the other example 12. There are on the epimerum of the mesothorax 3 or 4 apical bristles and 4 or 5 lateral ones (2 or 3, 2, 3 or 4). The sternites of segments 4 to 6 of the abdomen have a row of 6 bristles on each side in the type, and of 5 in the second specimen. The seventh sternite bears in the type an elbowed row of 13 bristles on one side and 16 on the other, with six or seven smaller bristles in front of the row, the numbers in the second individual being 11 bristles in the row, and 3 or 4 in front. In shape the seventh sternite resembles that of *I. intermedius*, being narrower than in *I. elongatus*. The eighth sternite (Fig. 1) is elongate-triangular in lateral aspect, differing therein considerably from *I. elongatus*, but less from *I. intermedius*. The stylet (Fig. 2) is very short, being much shorter than in any other eight-combed bat-flea.

The bristles on the first segment of the mid and hind tarsi are longer than in *I. elongatus*, being practically the same as in *I. intermedius*. The hind tibia bears 12 or 13 short bristles along the hind edge between the second notch and the apex, the hind tibia having 9 or 10 notches inclusive of the apical one. As in the allied species, only the first and second notches bear a pair of diverging spines.

Two females off *Vespertilio serotinus*, obtained at Malcoci Tulcea, Roumania, on May 4th, 1908, by A. Rettig.

4.—CTENOPHTHALMUS PROVINCIALIS, Rothsch. (Fig. 3).

C. provincialis, Rothsch., Ent. Mo. Mag. (2), vol. xxi, p. 207, Fig. 3 (1910).

This species was described from a single male found on *Mus sylvaticus* at Valescure, South France (not Valescura, Portugal, as misprinted in the original description). Dr. K. Jordan caught a series of both sexes of the same insect in July of this year at Valloire, Savoie, off *Arvicola agrestis*. The males agree well with the type specimen. The female is distinct from that sex of *C. agyrtes* Heller (1896), and agrees with *C. baticus*, Rothsch. (1910), in the absence of a narrow lobe beneath the large one in the seventh abdominal sternite. This sternite is characterised in *C. provincialis* by the large lobe being emarginate as shown in the figure (fig. 3). Sometimes the sinus is deeper, in which case the lower portion of the lobe is transformed into a small process, which is probably homologous with the narrow separate lobe found in *C. agyrtes*.

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THREE SPECIES OF THYSANOPTERA (TUBULIFERA) NEW TO THE
BRITISH FAUNA.

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Of the following three species, all of which are described in Uzel's "Monographie der Ordnung Thysanoptera," the occurrence of *Liothrips hradeensis* is perhaps the most interesting, there having been but one example previously known. The last-mentioned insect is apparently attached to elm.

The other two species are recorded on the strength of single pinned specimens in the British Museum.

Sub-Order TUBULIFERA.

✓ CRYPTOTHRIPS LATA, Uzel.

"Monographie der Ordnung Thysanoptera," p. 230, pl. iii, fig. 24, pl. vii, figs. 118—122, 1895.

A single British example is in the British Museum. A very broad and distinct form, which is most closely related to *C. nigripes* (Reuter), from Finland, differing chiefly in its shorter and broader head, and the relatively longer antennæ.